

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : John C. Batterton et al. Art Unit : 2853
Serial No. : 10/749,833 Examiner : Mruk, Geoffrey S.
Filed : December 30, 2003
Title : DROP EJECTION ASSEMBLY

MAIL STOP AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office OG Notices: 12 July 2005 - New Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 1-3, 5-15, 17-20, and 22-26 are pending, with claims 1 and 12 being independent. Claims 1-3, 5-7, 9, 10, 15, and 16 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Louzil et al. (U.S. Patent No. 4,422,082). Claims 8 and 11 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Louzil et al. in view of Hawkins et al. (U.S. Patent No. 6,258,286), claims 17 and 18 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Louzil et al. in view of Kobayashi et al. (U.S. Patent No. 5, 898, 444), and claim 19 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Louzil et al. in view of Bentin (U.S. Patent No. 4,413,268). Reference is hereby made to the arguments already of record regarding the failure to establish anticipation and obviousness; see the response to the final office action, filed on May 15, 2006, at pages 6-9.

In the response to the final office action filed on May 15, 2006, Applicants amended independent claim 1 to recite that the drop ejector further comprises "at least one radial channel" as was previously recited in amended claim 16 (now canceled). Applicants also amended independent claim 12 to recite that the method of fluid ejection further includes "at least one

radial channel in the substrate,” as was previously recited in amended claim 21 (now canceled). In the Advisory Action mailed May 25, 2006, the Examiner entered these amendments.

Independent Claim 1

Louzil does not anticipate claim 1 under 35 U.S.C. §102(b) because Louzil fails to disclose a drop ejector including a channel formed in the substrate proximate the nozzle opening for drawing fluid into the space defined by the channel. Indeed, the Examiner acknowledges in the Final Office Action that Louzil does not disclose this feature when referring to independent claim 12. (See Final Office Action, p. 7). The Examiner states “Louzil fails to disclose drawing fluid into the space defined by the channel.” Claim 1 therefore is not anticipated by Louzil. Furthermore, there are other reasons that Louzil does not anticipate claim 1.

The presently claimed subject matter of claim 1 is directed to a drop ejector including a channel formed in the substrate proximate the nozzle opening for drawing fluid into the space defined by the *channel*,...and at least one *radial channel*. (Emphasis added) Thus, the drop ejector includes both a *channel* and a *radial channel*.

Claim terms must be read in light of the patent specification to ascertain the intended meaning. The specification includes an exemplary embodiment in Fig. 2A, which shows channels 44 that collect, localize and direct waste ink. Channels 44 are connected by radial channels 46 and 48 that emanate from channels 44, forming a network of connected channels that direct and hold stray fluid on the nozzle plate. (See Application Detailed Description, paragraph 14 and 15).

Louzil et al. does not disclose both a channel and a radial channel. Louzil describes a method of manufacturing a jet nozzle plate having a nozzle and an annular trough 9 around the nozzle. The method of manufacturing the nozzle plate provides for accurate capping of the nozzles. (See col. 1, lines 52-59; col. 2, lines 13-22). While Louzil et al. discloses an annular trough 9, he does not disclose a radial channel as recited in claim 1. (See Figs. 6 and 7, element 9; col. 5, lines 5-11).

To anticipate a claim, the cited reference must describe each and every element recited in the claim. The Examiner has failed to show that Louzil describes each and every element because the Examiner points to one element in Louzil et al. to read on two elements in Applicant's claim 1. The Examiner points to the annular trough 9 in Fig. 6 to read on the *channel* recited in claim 1, and again the Examiner points to the same annular trough 9 in Fig. 7 to read on the *radial channel*. (See Final Office Action, p. 2-3, mailed March 12, 2006 and Advisory Action, item 11, mailed May 25, 2006). Hence, the USPTO has not met its burden of putting forth a prima facie showing of anticipation. Therefore, for at least the reasons discussed above, claim 1 is patentable over Louzil et al.

Furthermore, dependent claims 2, 3, 5-11, 15, and 17-19 are not anticipated for at least the same reasons that independent claim 1 is not anticipated.

Independent Claim 12

The presently claimed subject matter of claim 12 is directed to a method of fluid ejection including positioning a channel in the substrate proximate the nozzle opening for drawing fluid into the space defined by the channel.

Claim terms must be read in light of the patent specification to ascertain the intended meaning. The specification refers to an exemplary embodiment in Figs. 3A and 3B, in which waste ink 38 deposits on platform area 43 and is drawn into channel 44 by capillary forces. In another embodiment, the nozzle plate is oriented vertically and the waste ink moves through the network of channels under the influence of both gravity and capillary action. (See Application Detailed Description, paragraph 15).

The Examiner rejected claim 12 as unpatentable under 35 U.S.C. 103 over Louzil et al. in view of Bentin (U.S. Patent No. 4,413,268). The Examiner acknowledges that Louzil fails to disclose drawing fluid into the space defined by the channel. The Examiner cites Bentin as disclosing this feature. We disagree. Bentin describes cleaning the nozzles by *flooding* the nozzles and discharging excess ink. (Col. 5, lines 1-21). Bentin therefore does not describe

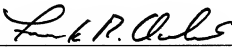
drawing fluid into the spaced defined by the channel, as recited in independent claim 12. The Application's Detailed Description explains that fluid can be drawn into a channel by capillary or gravitational forces. (See Application Detailed Description, paragraph 15) The ink in Bentin is flooded into the trough 6 and into the channels 7 rather than being drawn into the channel. (Col. 5, lines 10-20)

Even if a person of ordinary skill in the art would have modified Louzil's system to include Bentin's cleaning mechanism, as proposed by the examiner, that person of skill in the art would not arrive at the invention recited in independent claim 12, specifically, a drop ejector...for *drawing* fluid into the space defined by the channel. Accordingly, Applicants submit that claim 12 is patentable and respectfully request that the rejection under 35 U.S.C. 103 be withdrawn. Furthermore, dependent claims 13, 14, 19, 20, and 22-26 are patentable for at least the same reason that independent claim 12 is patentable.

Payment for the notice of appeal is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. No additional fees are believed to be due in connection with the filing of this request for review. However, to the extent fees are due, or if a refund is forthcoming, please adjust our deposit account 06-1050, referencing attorney docket "09991-151001."

Respectfully submitted,

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Frank R. Occhiuti
Reg. No. 35,306

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 524-5070
Facsimile: (617) 542-8906